Figure S1. ^{1}H COSY spectrum of entry 16: whole range.

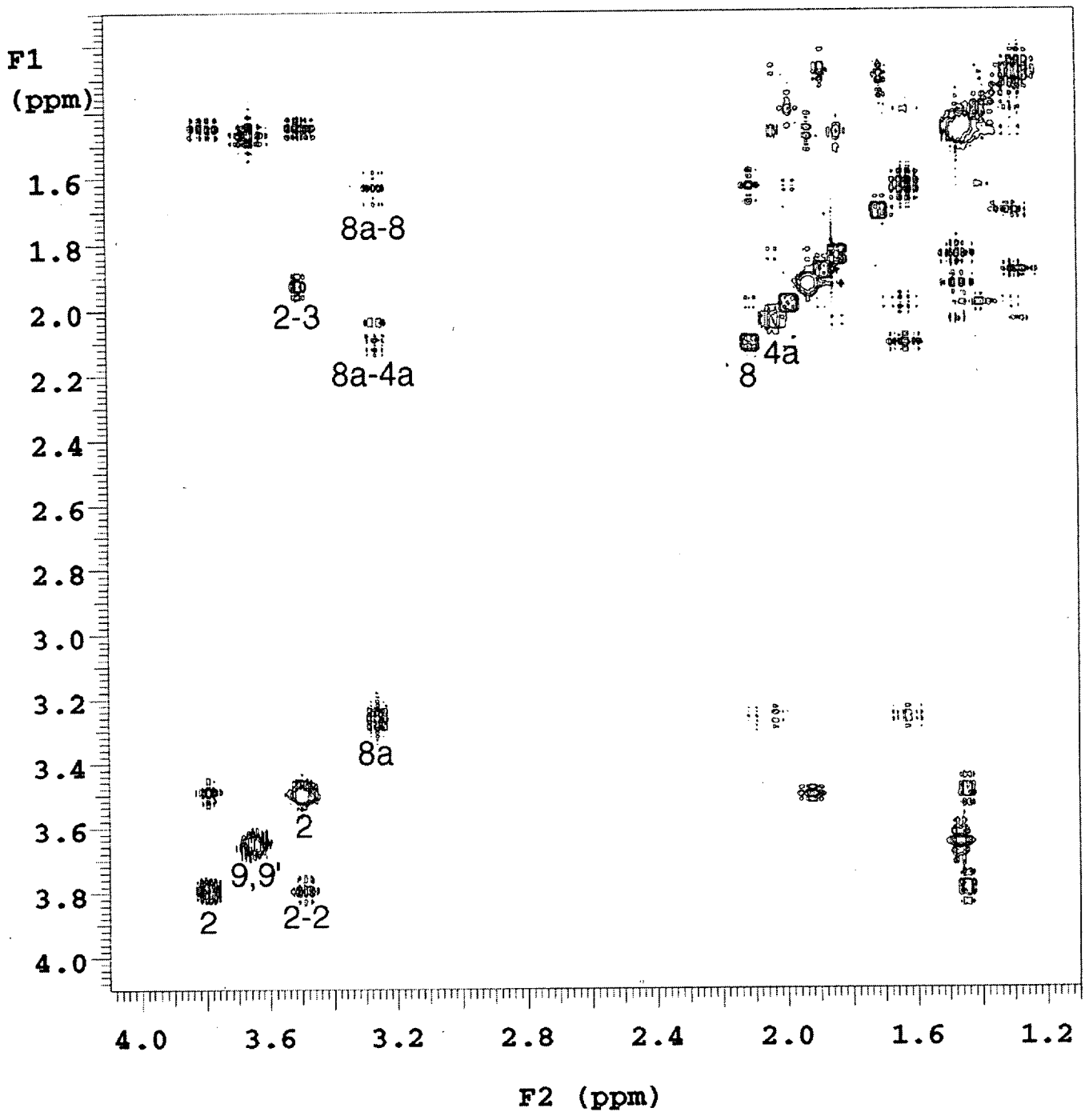


Figure S2. ^{1}H COSY spectrum of entry 16: CH_2 groups.

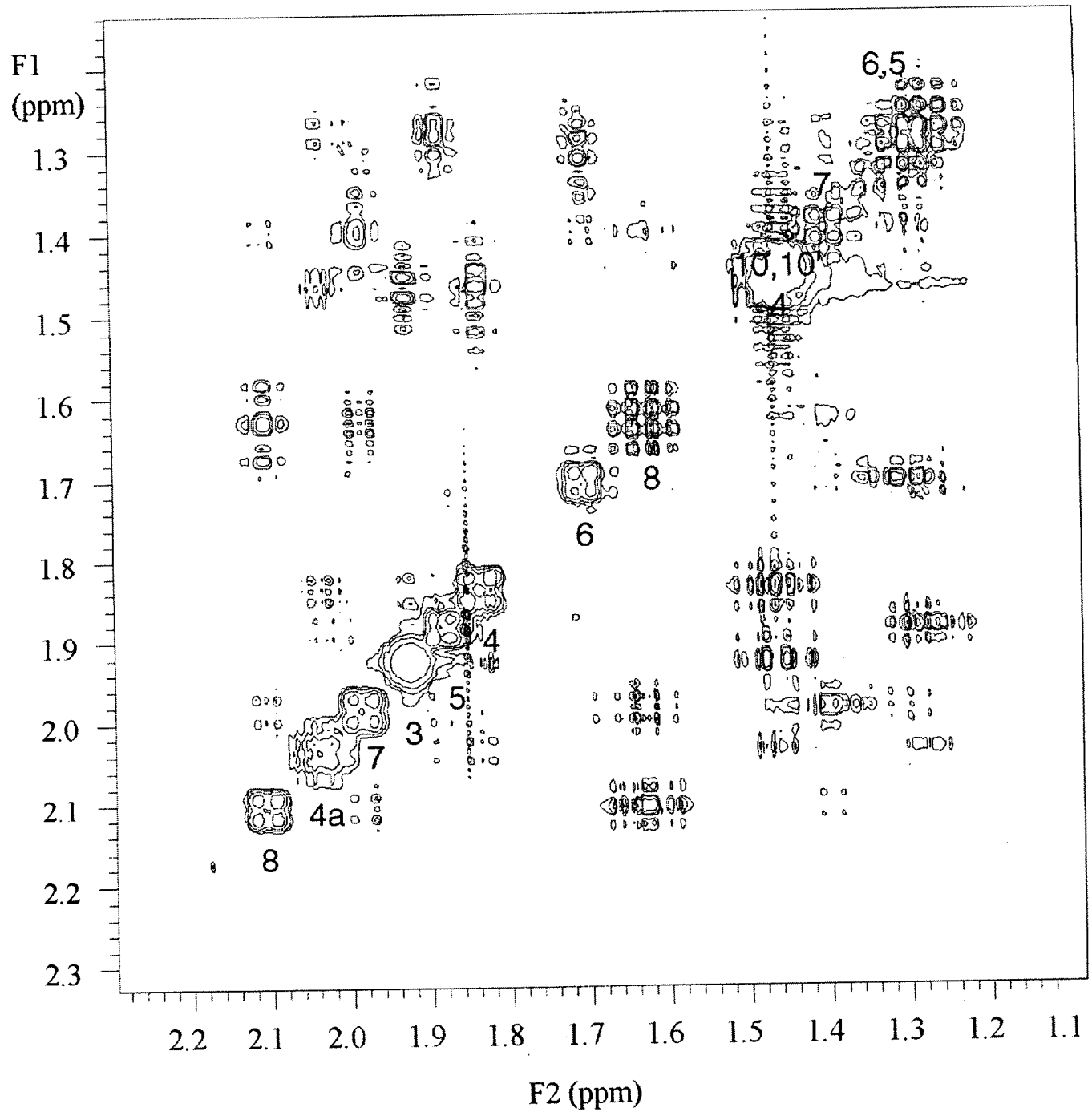


Figure S3. ^{1}H COSY spectrum of entry 15: whole range.

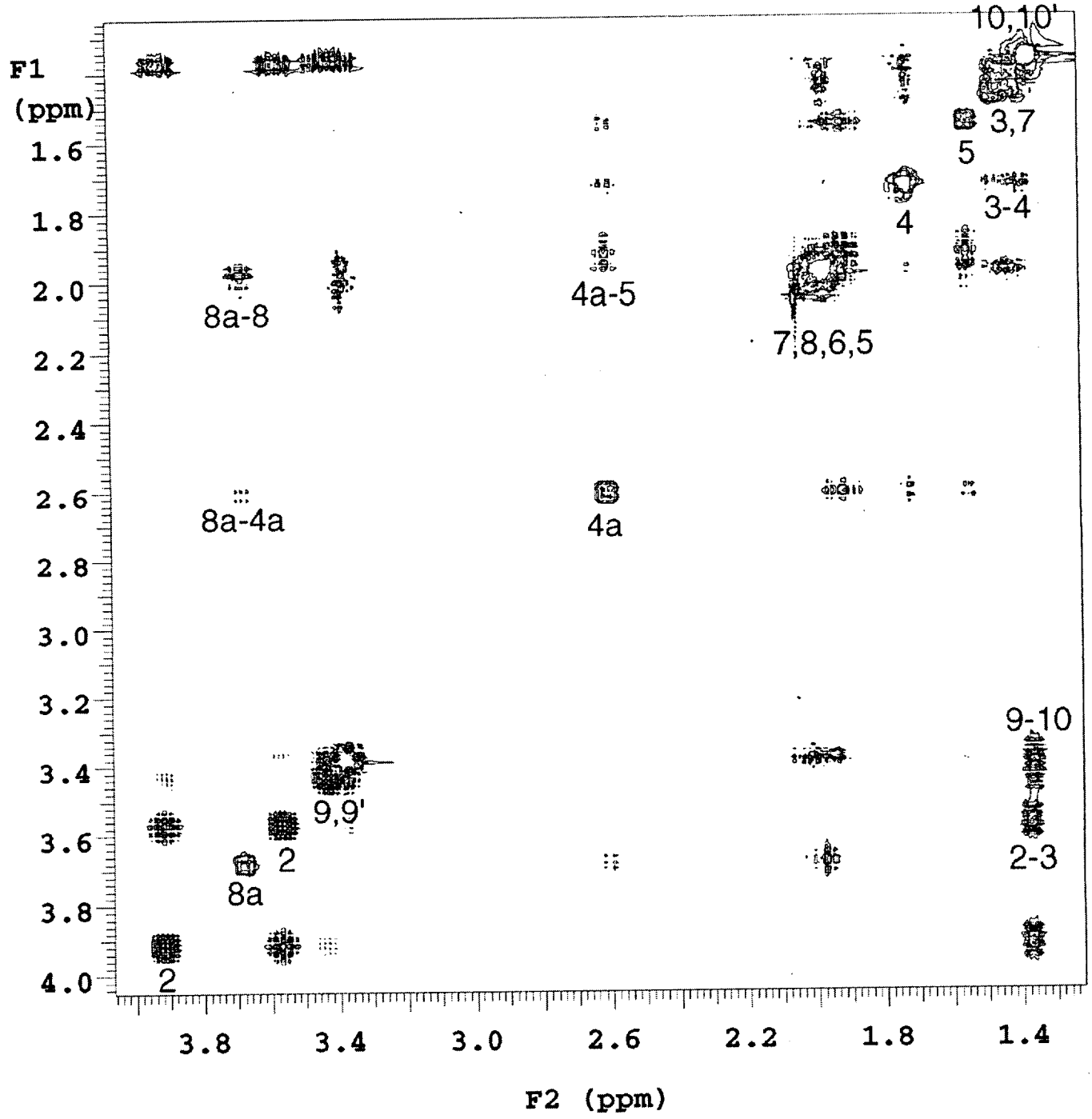
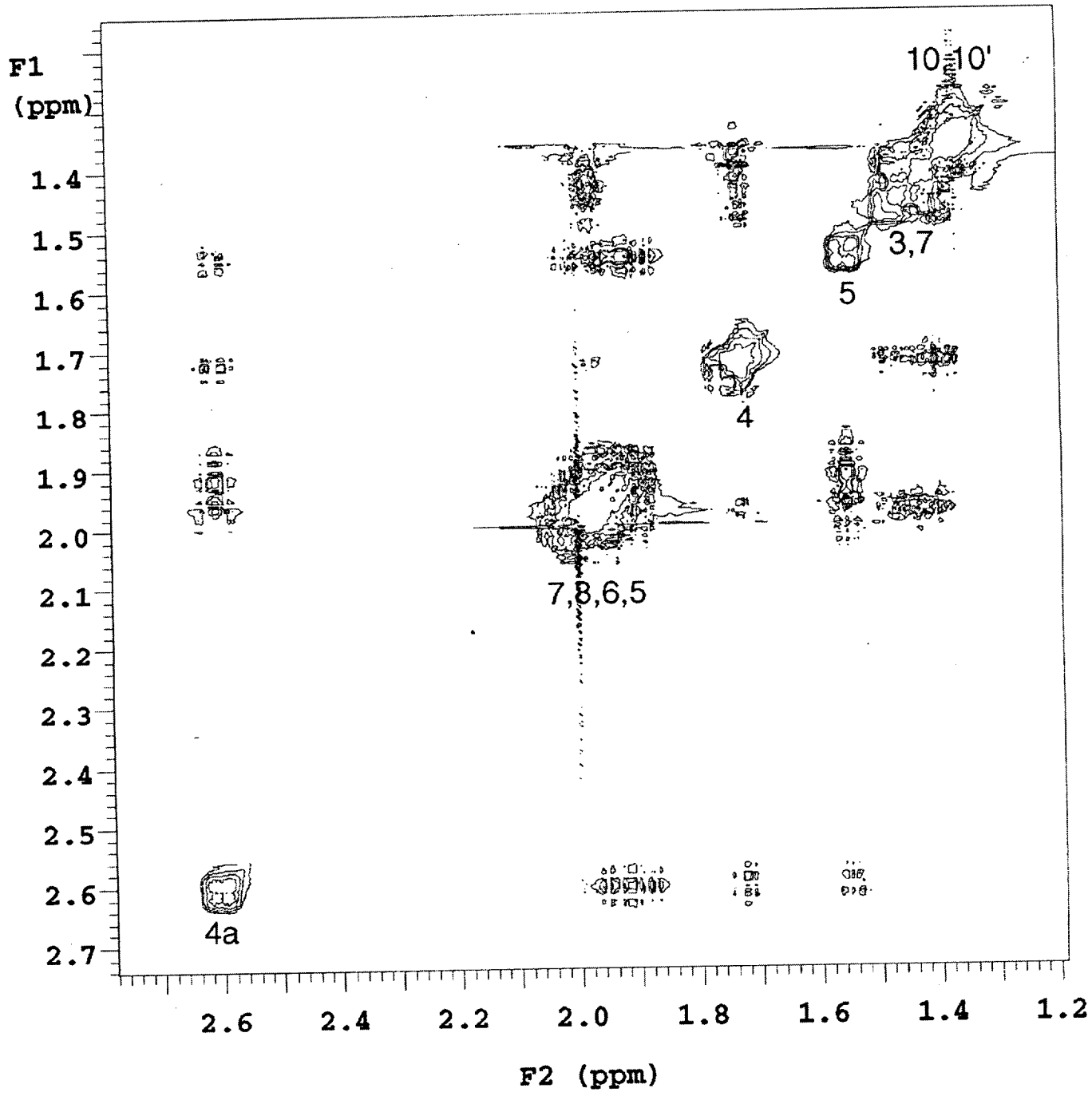


Figure S4. ^{1}H COSY spectrum of entry 15: CH_2 groups.



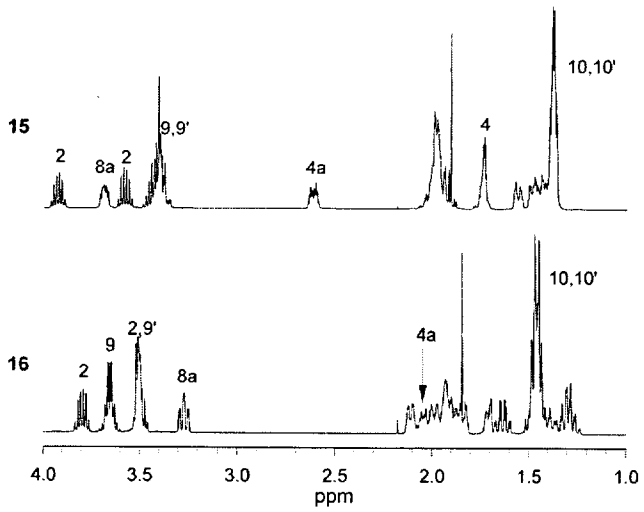


Figure S5. ^{1}H NMR of two isomer crops of Iodide Salts (15, 16) obtained using Varian INOVA-500 spectrometer. The assignments are based on ^{1}H-^{13}C heteronuclear correlation spectroscopy (HMQC sequence) that is shown in Figure S6a, b.

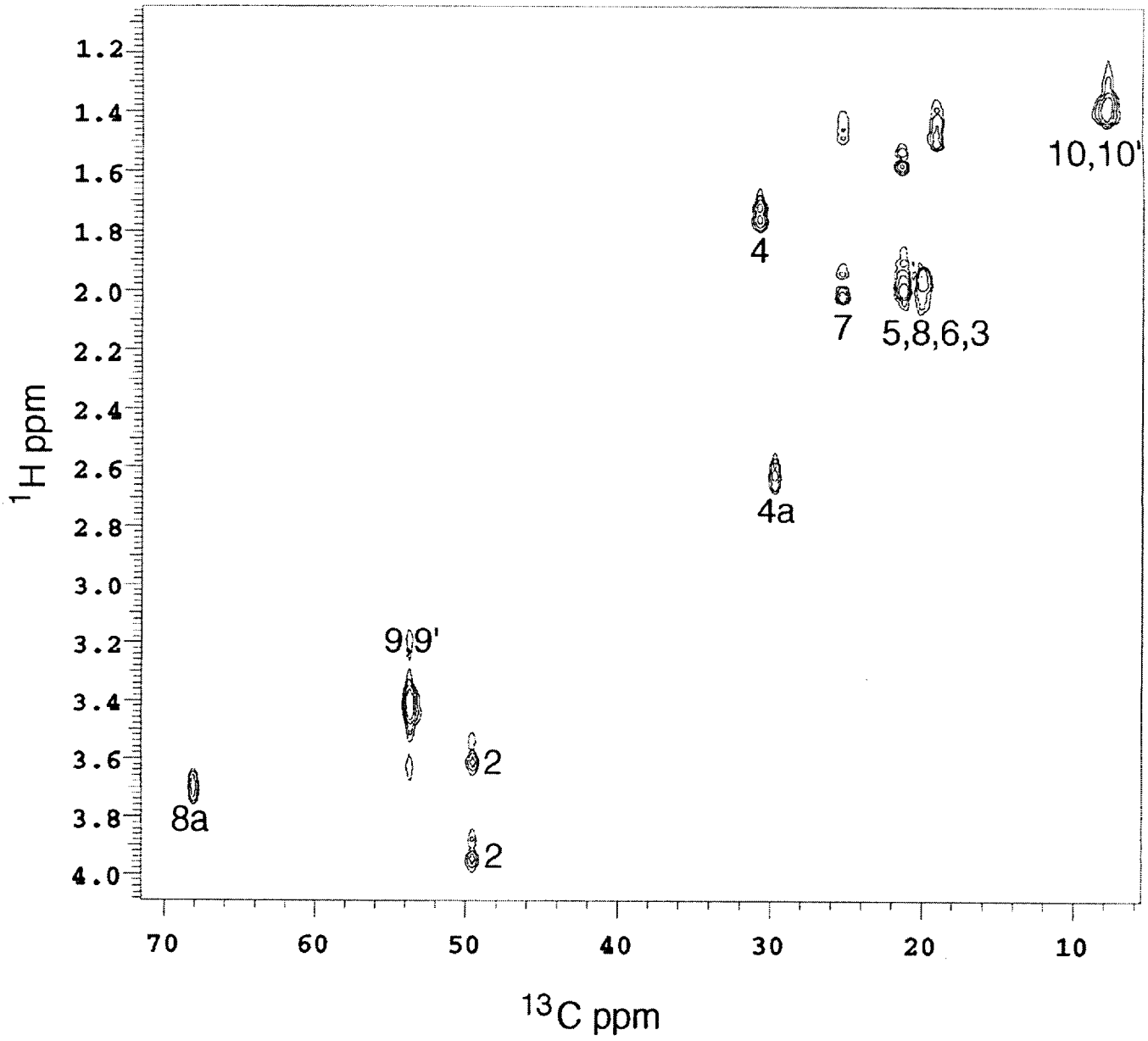


Figure S6a. HMQC spectrum of entry 15.

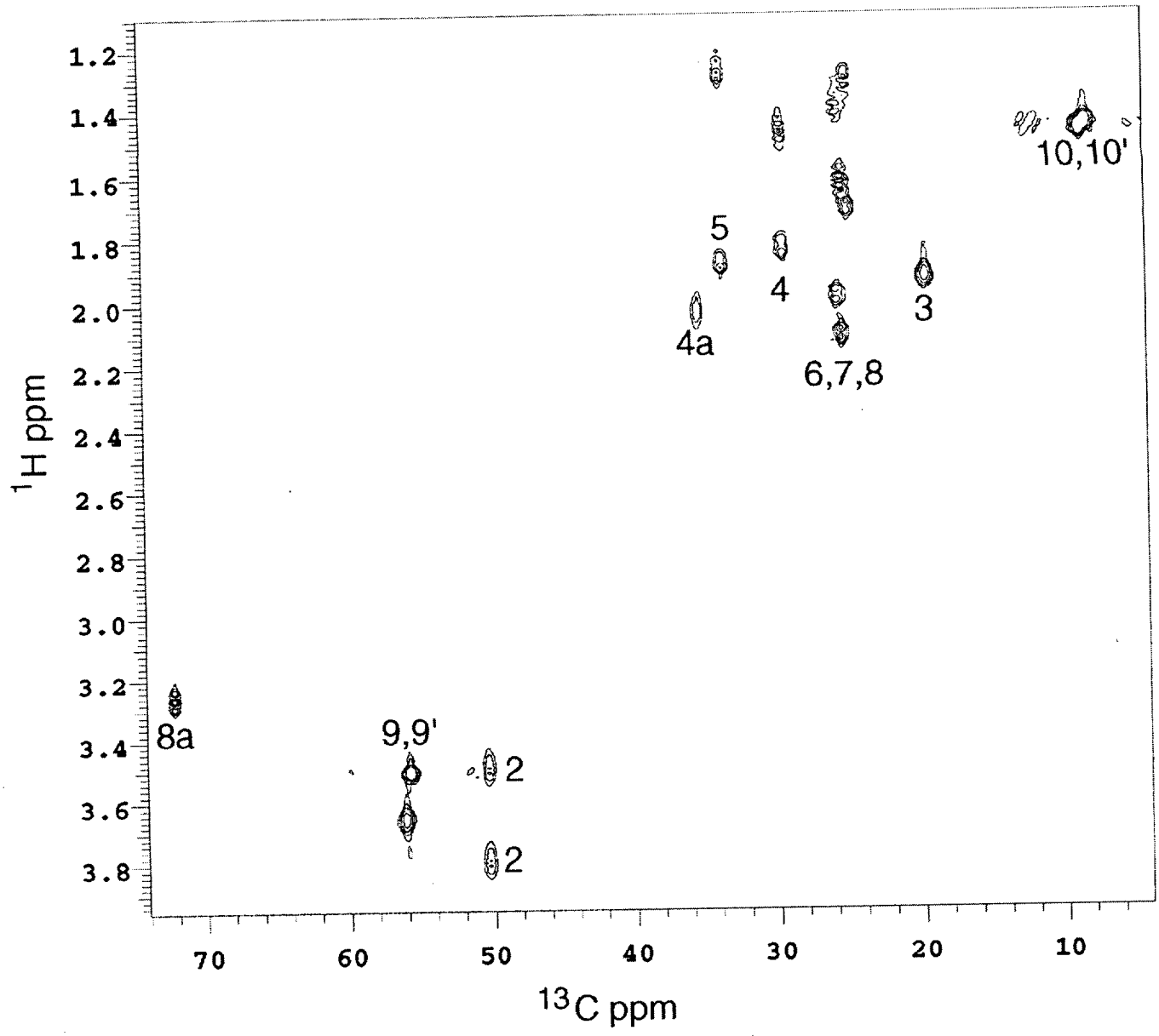


Figure S6b. HMQC spectrum of entry 16.

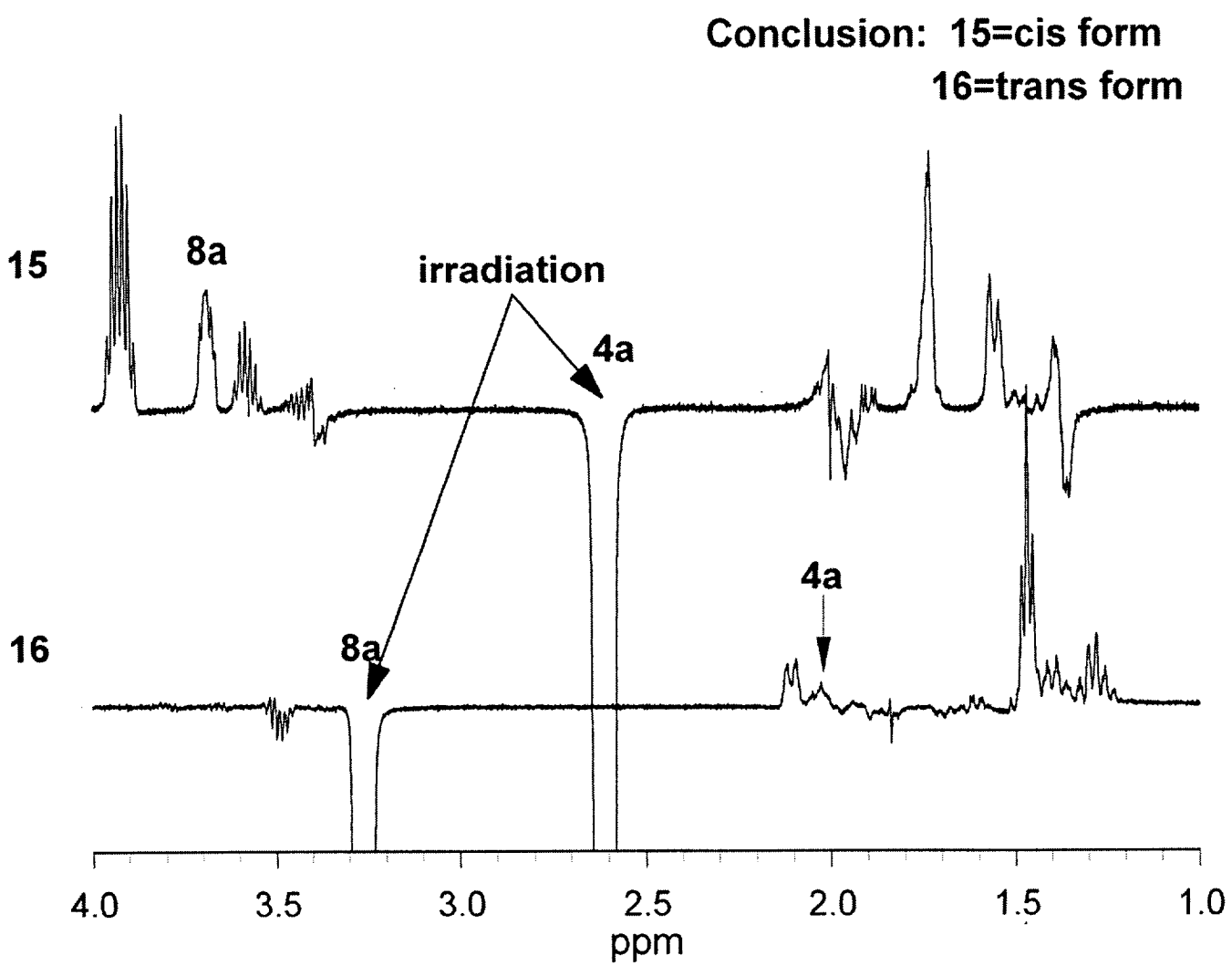


Figure S7. ^{1}H NOE spectra of both samples. NOE % between proton 4a and 8a: 16<1, 15 = 4.0.

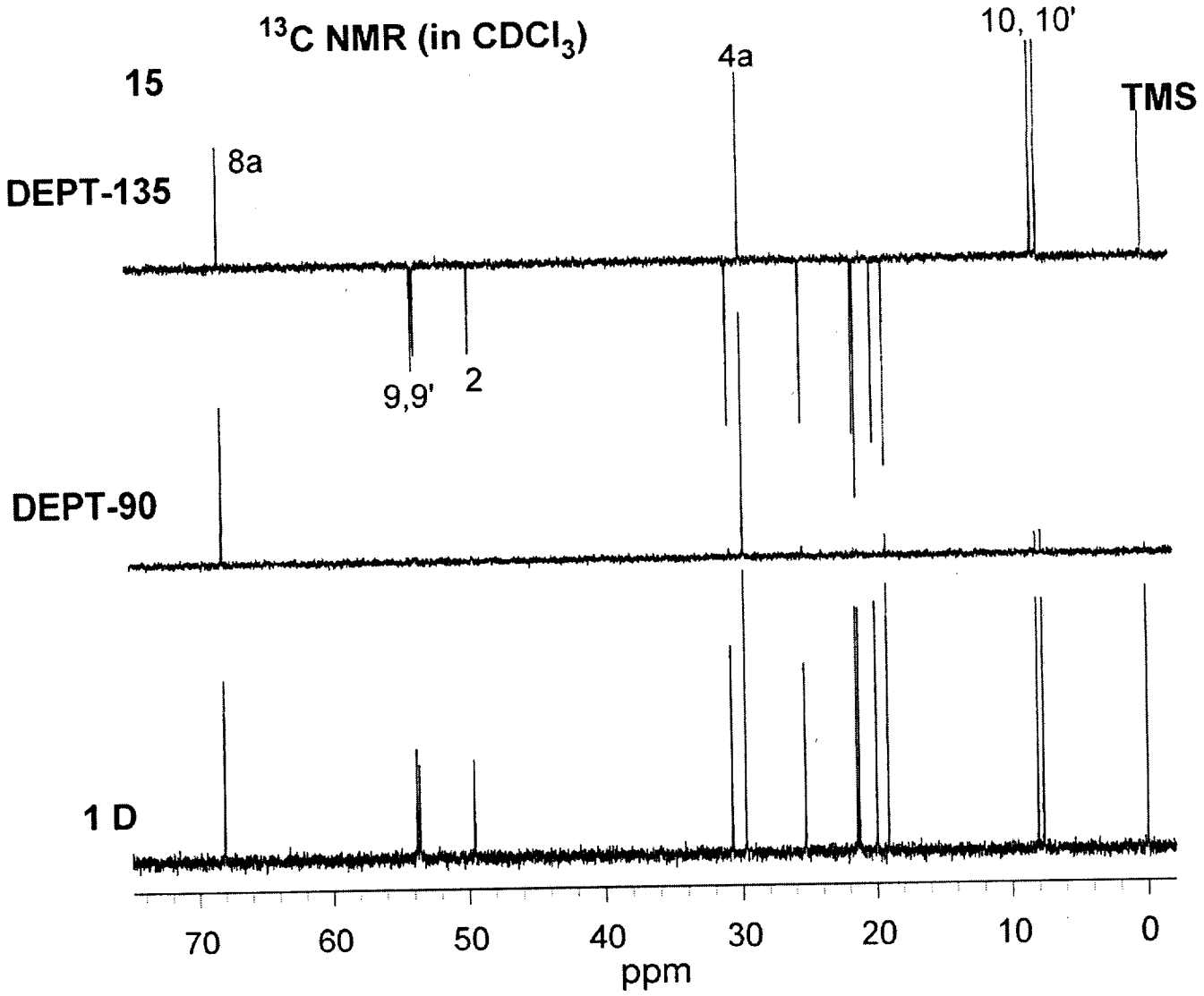


Figure S8a. ^{13}C 1D and DEPT spectra. DEPT-90 filters out CH carbons. The DEPT-135 results in positive CH and CH_3 and negative CH_2 carbons.

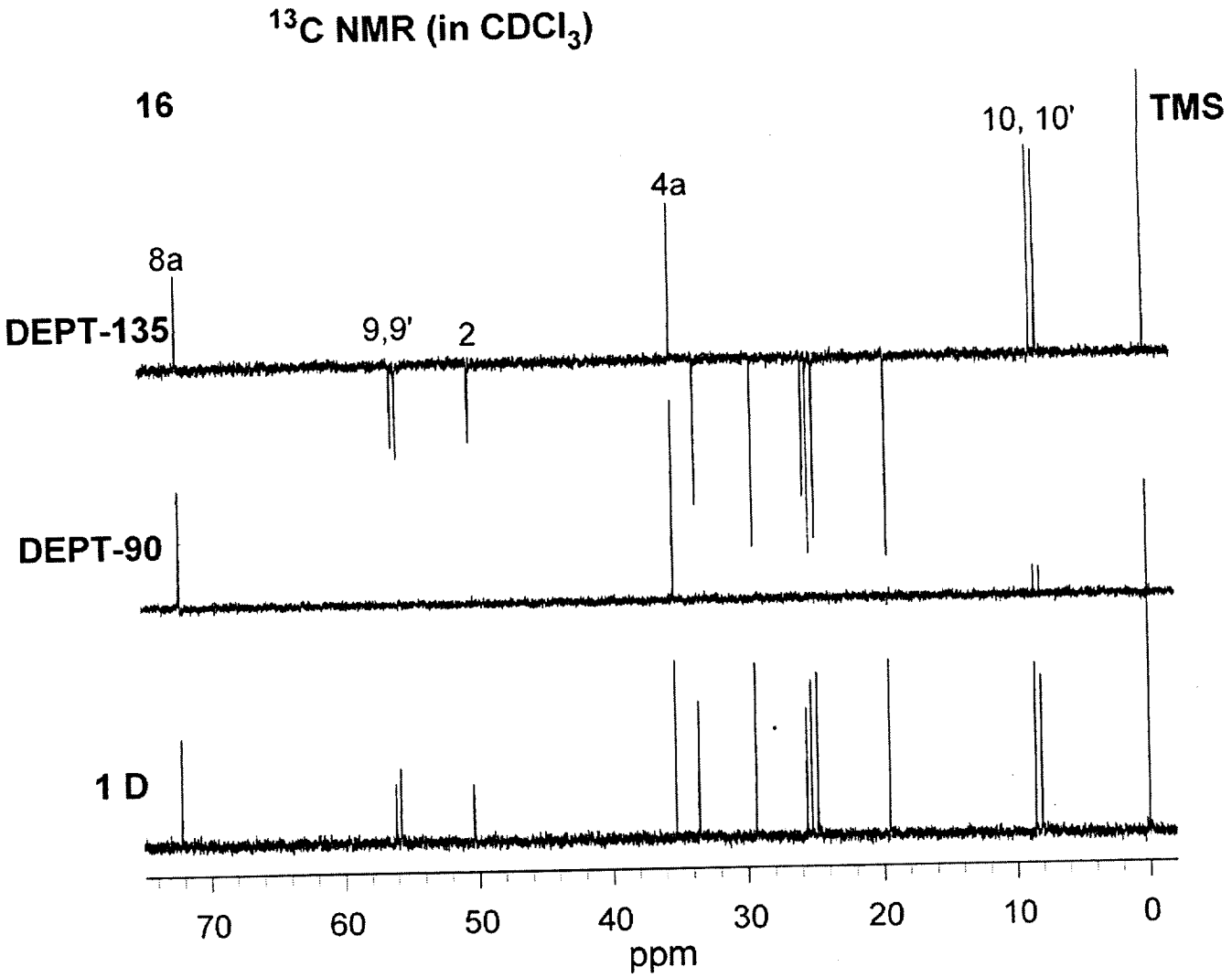


Figure S8b. ^{13}C DEPT NMR: The DEPT experiments allow us to assign CH, CH_2, CH_3 carbons, and the NMR results are shown in Figure 11. Note that assignment on CH_2 carbons was not attempted because they would not help to clarify the conformation difference.